

HEADACHE



ILO's

- Define headache
- Compare primary and secondary headache
- Explain the mechanisms of primary headache
- Describe secondary headache

Definition:

Headaches are a type of pain referred to the surface of the head from deep head structures

Types

MIGRAINE

- ✓ It may occur secondary to **prolonged tension or emotions.**
- ✓ The headache is sometimes preceded by aura = visual disturbances or sensory hallucination (30 minute to 1 hour before headache starts).
- ✓ The pain is **pulsatile** and accompanied by other symptoms such as nausea, vomiting, blurred vision, and

TYPICAL MIGRAINE HEADACHE SYMPTOMS

A headache, which begins as a dull ache and transforms into throbbing pain

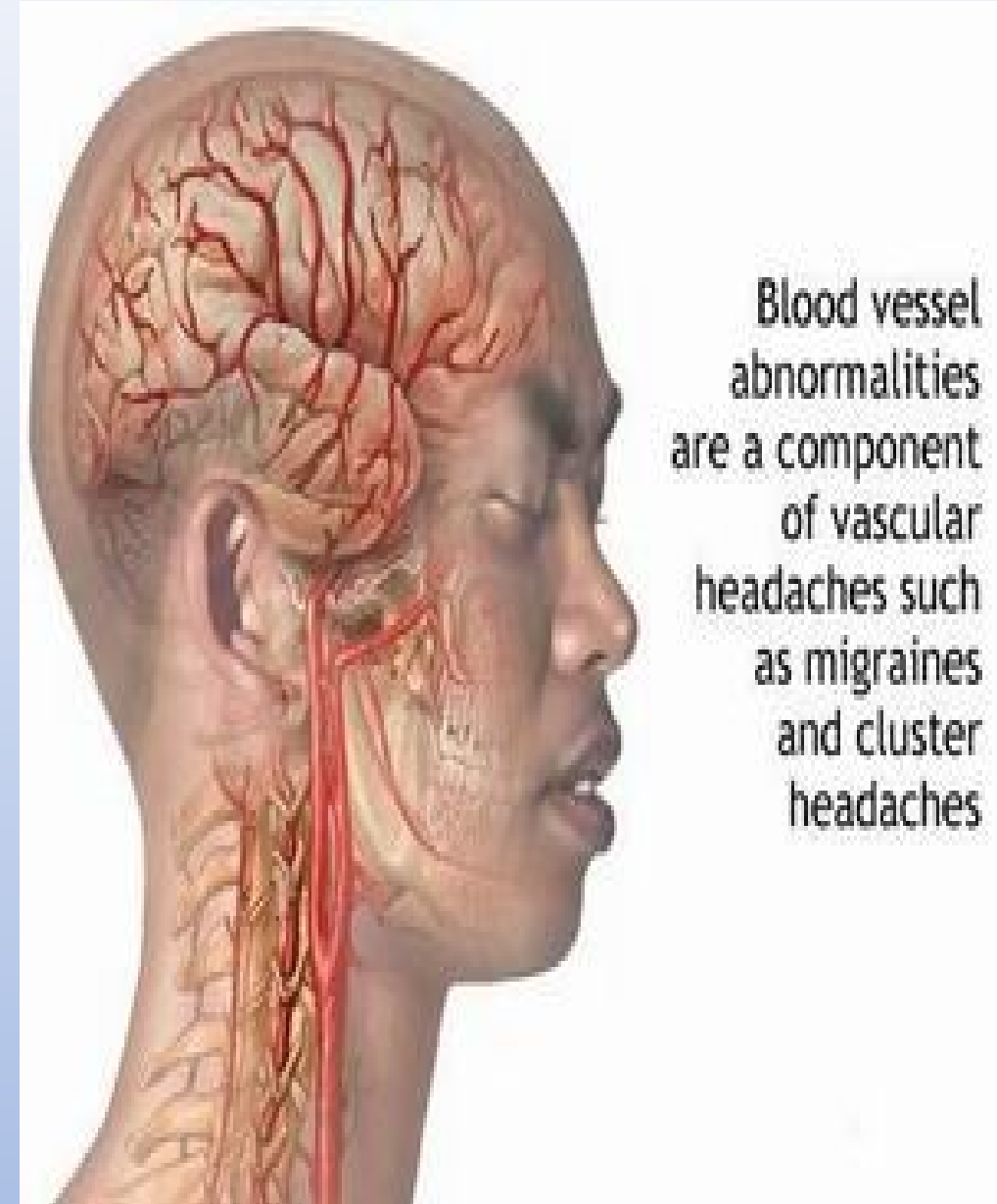


MIGRAINE

✓ **Mechanism:** most likely it is caused by V.C. of the cerebral arteries, which results in ischemia, and this is followed by intense V.D.

✓ **Migraines are often triggered** by:

- Food items: red wine, chocolate, and aged cheeses.
- For women, a hormonal connection : the menstrual cycle, with use of



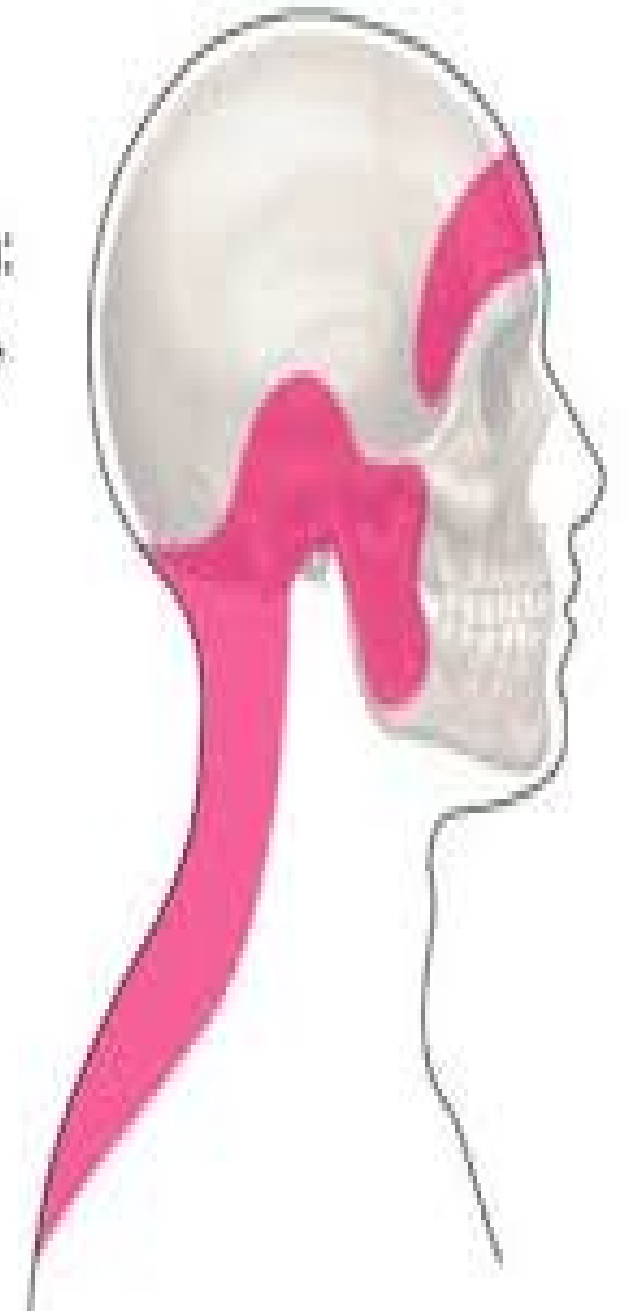
TENSION-TYPE HEADACHE

a) Tension-type headaches:

- ✓ It is the commonest type of 1ry headache.
- ✓ The typical tension-type headache is described as a tightening around the head and neck, and an accompanying dull ache.

New Five Year Program

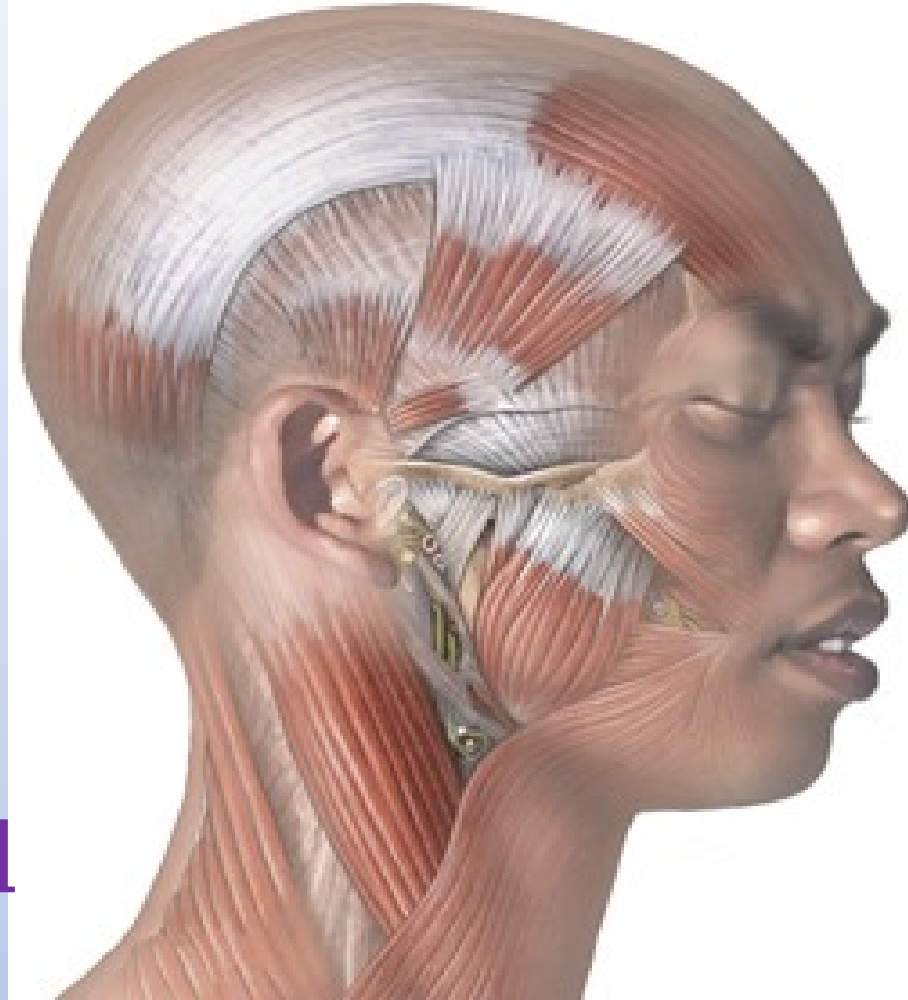
Possible areas of pain:
upper back and neck,
base of head,
the ears,
above the ears,
the jaw,
above the eyes



TENSION-TYPE HEADACHE

It may be caused by:

- stress
- overexertion
- loud noise
- sleep deprivations
- Irregular mealtime
- Eyestrain
- Caffeine withdrawal
- Dehydration



Muscle tension
in the face, neck,
and shoulders
may cause
tension
headache

ADAM

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CLUSTER HEADACHES

- ✓ It is severe, stabbing pain centers around one eye (periorbital), with ipsilateral eye lacrimation and nasal congestion.
- ✓ The headache lasts from 15 minutes to 4 hours and may recur several times in a day for

weeks



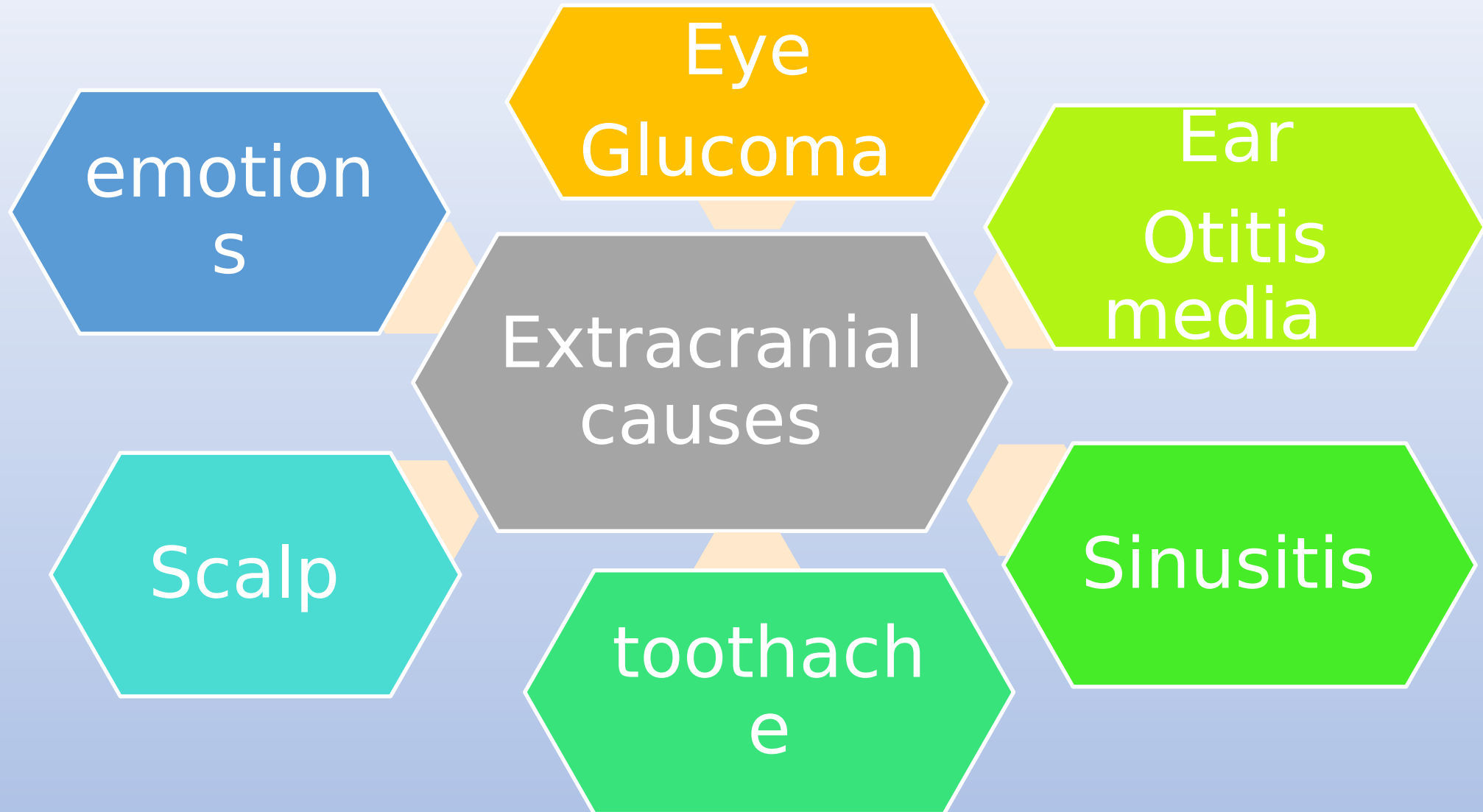
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Secondary Headache

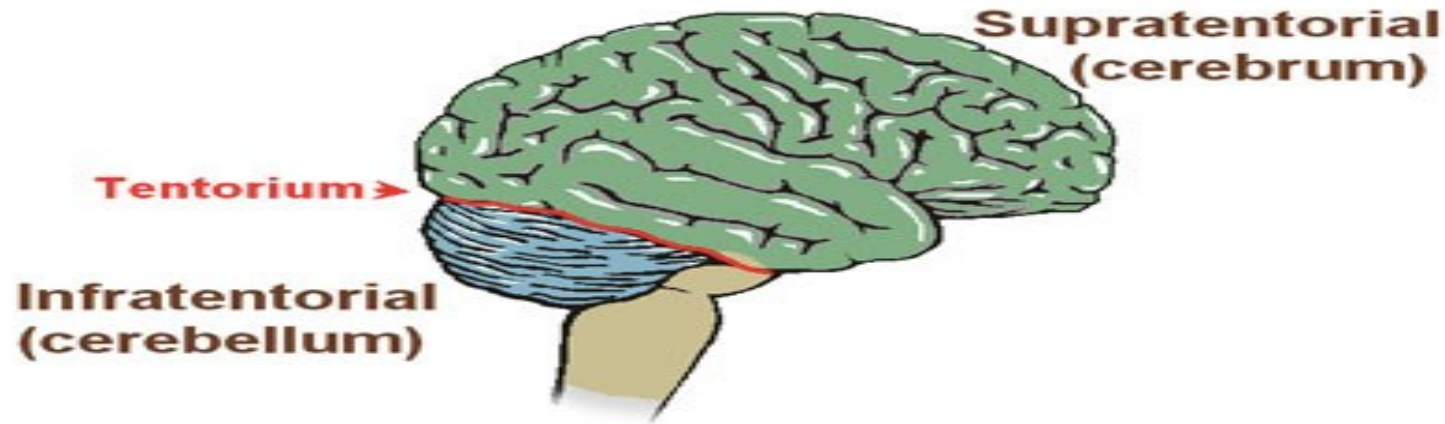
- ✓ Headache result from other
- ✓ Brain tissue itself has no sensitivity to pain disorders.
- ✓ Pain-sensitive structures in the head include :
 - a) Periosteum of skull
 - b) Meninges and tentorium
 - c) Blood vessel walls especially the middle cerebral artery and venous sinuses.
 - d) scalp subcutaneous tissue and neck muscles.
 - e) Eyes, Ears, teeth and sinuses

Extracranial causes of secondary headache

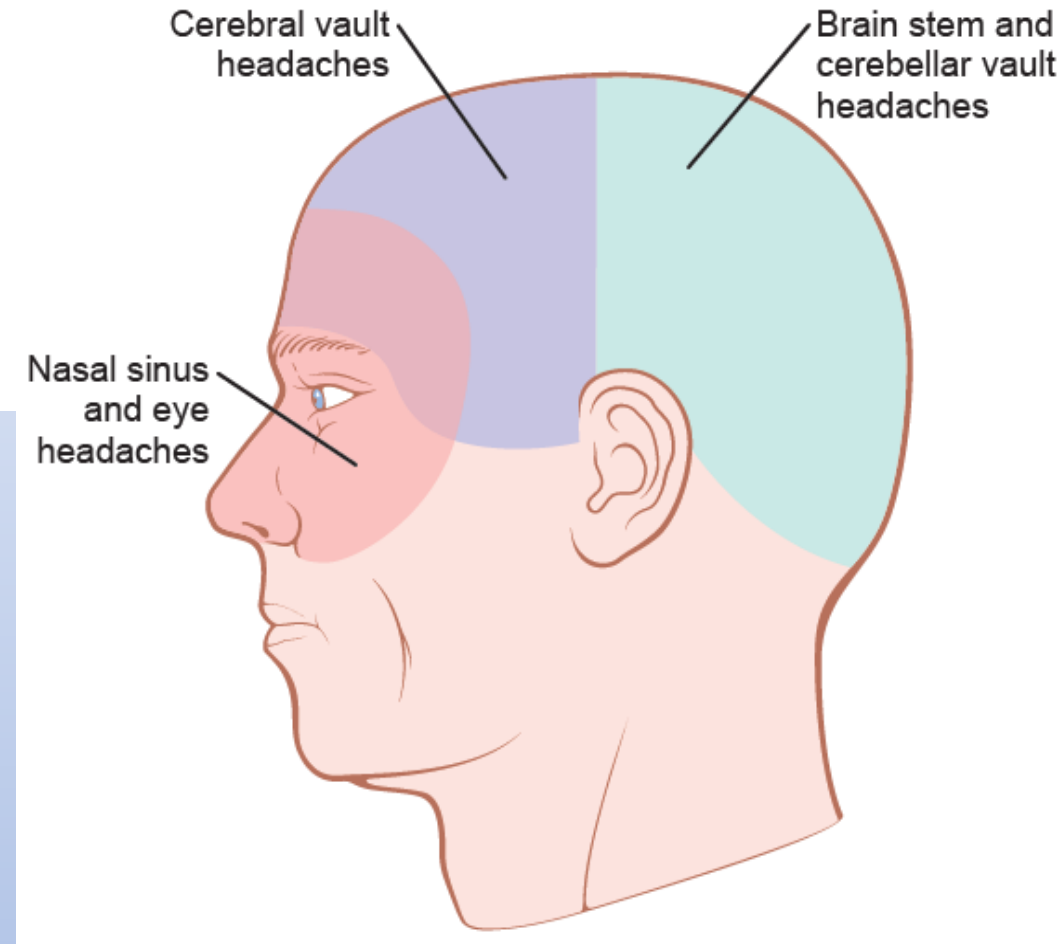


Intracranial causes of secondary headache

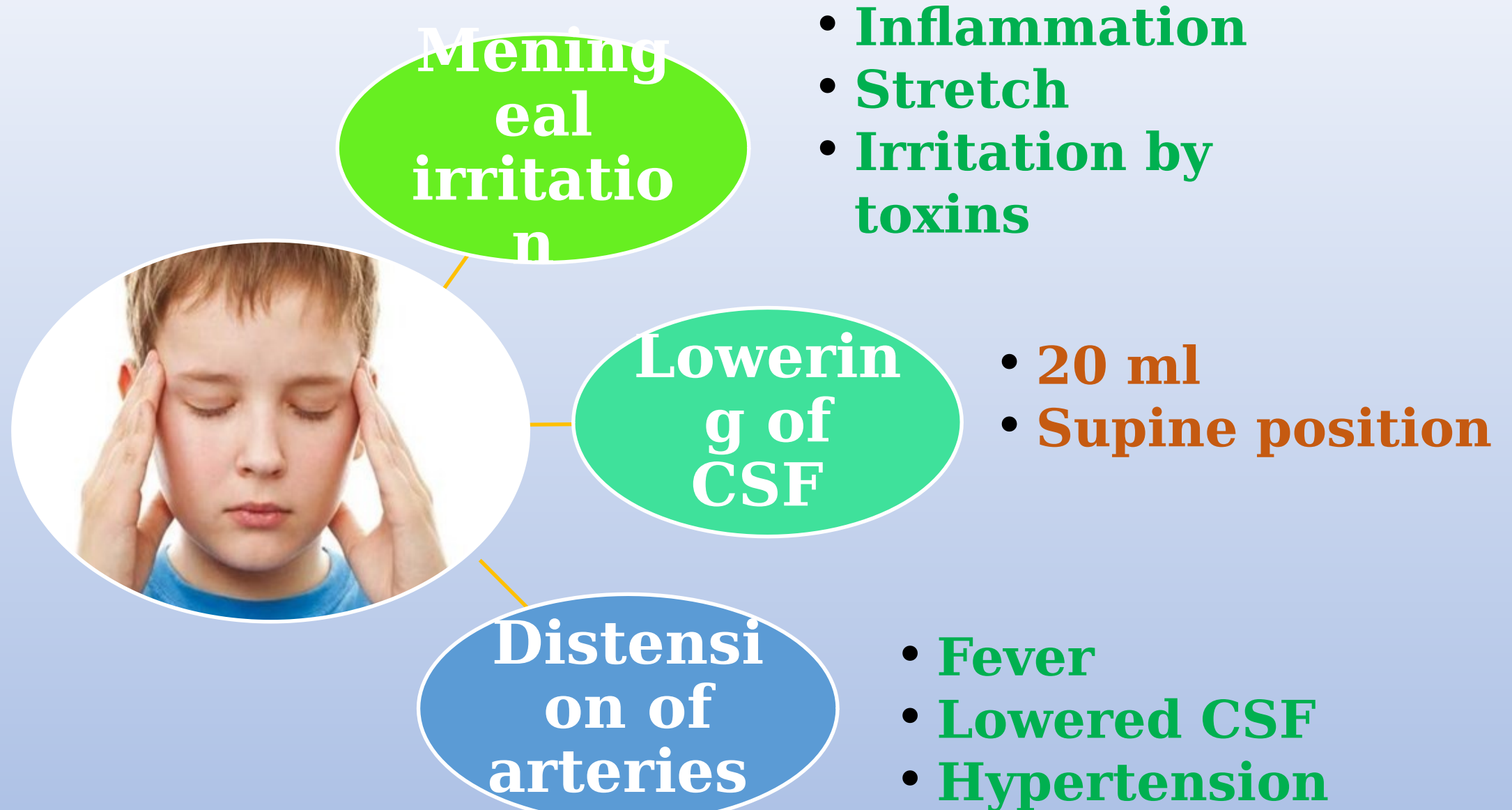
The Tentorium Cerebelli



- Stimulation of pain receptors above the tentorium, cause pain in the front half of the head
- Stimulation of pain receptors from below the tentorium causes pain in scalp above, behind, and slightly below the ear =



Mechanisms of Intracranial headache





Which of the following is a pain sensitive structures of the head and neck

- a. Skull bone
- b. Meninges
- c. Brain tissues
- d. Brain ventricles

b



Headache which occurs secondary to prolonged tension, accompanied by nausea, vomiting & blurred vision, & which can be triggered by food items, such as chocolate or menstrual period is which one of the following?

- a. Tension headache.
- b. Migraine. **b**
- c. Cluster headache.
- d. Secondary headache



Primary headaches may result from which one of the following

- a. Contraction of the muscles of the scalp,**
- b. Brain swelling that stretches the brain's coverings.**
- c. Sinus inflammation is a common cause of headache.**
- d. Dilation of intracranial blood vessels**

SUGGESTED TEXTBOOKS



1. Guyton and Hall textbook of medical physiology, thirteenth edition 2016, Elsevier
2. Ganong's Review of Medical Physiology, twenty-fifth edition 2016, McGraw-Hill Education